

FIG. 1A

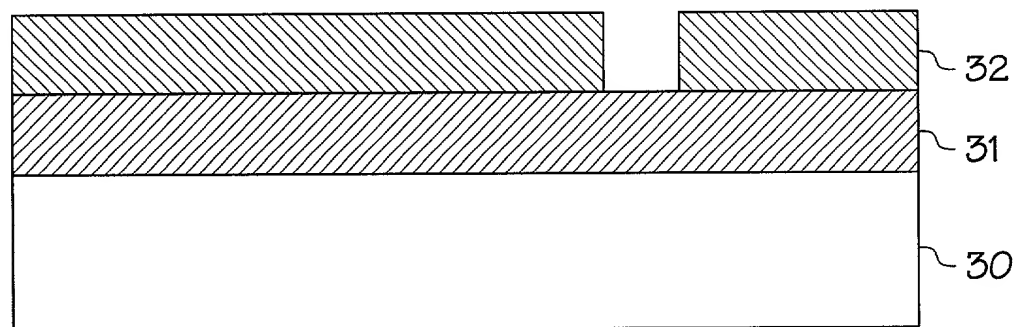


FIG. 1B

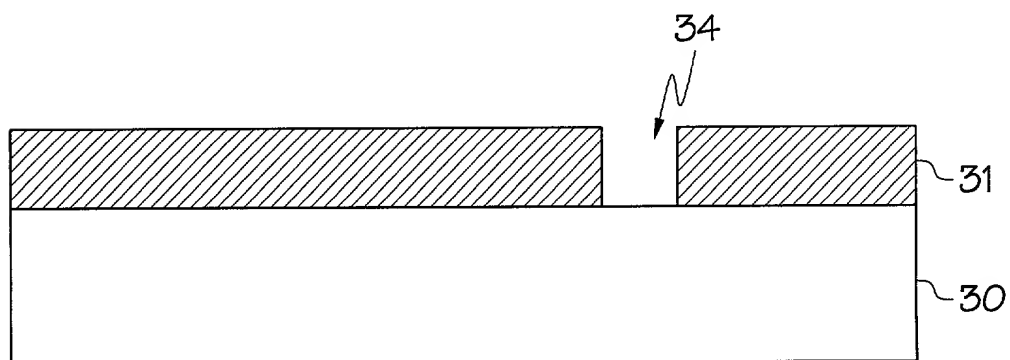


FIG. 1C

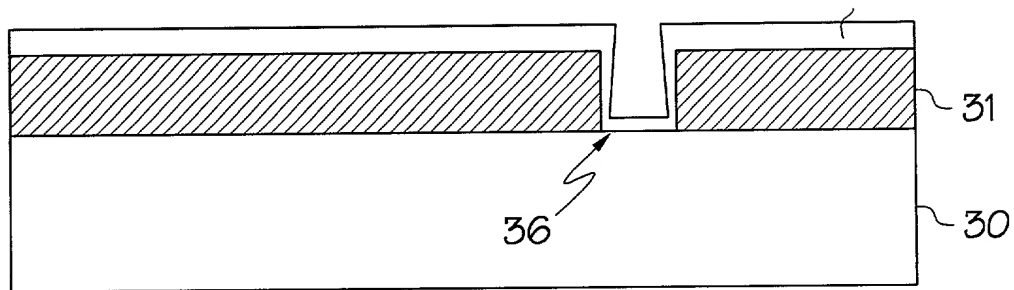


FIG. 1D

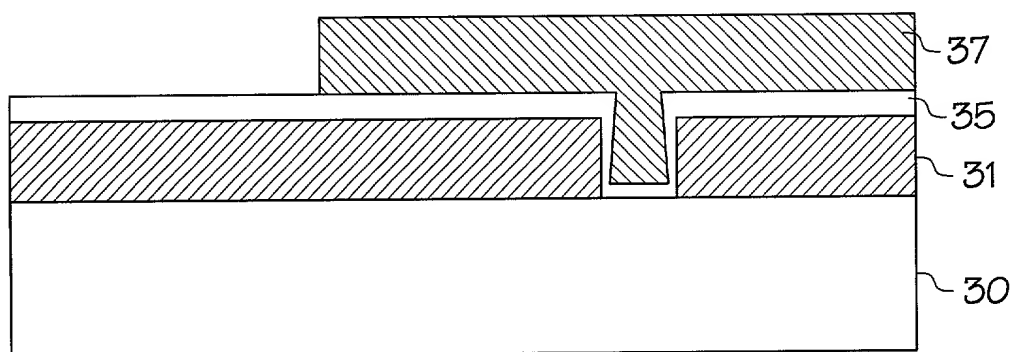


FIG. 1E

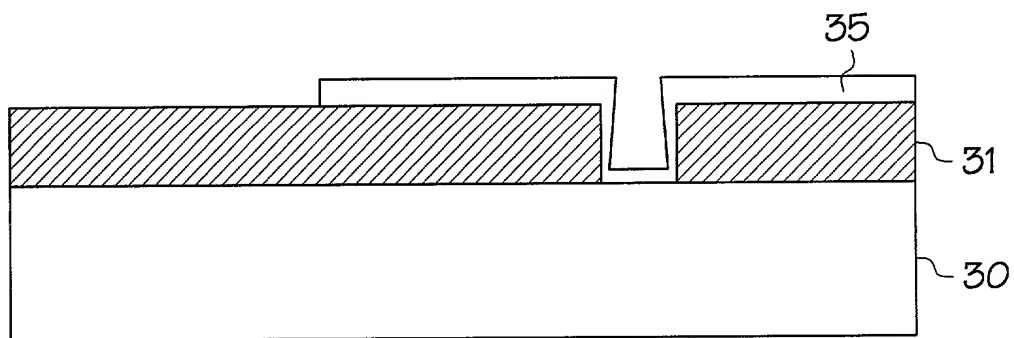


FIG. 1F

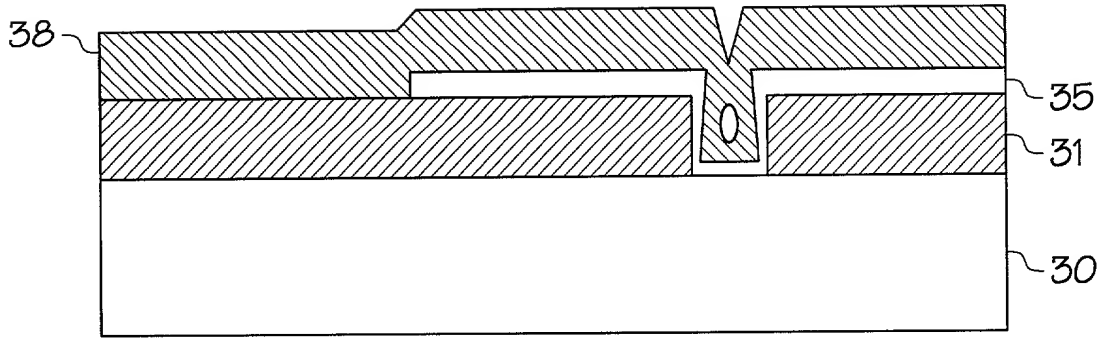


FIG. 1G

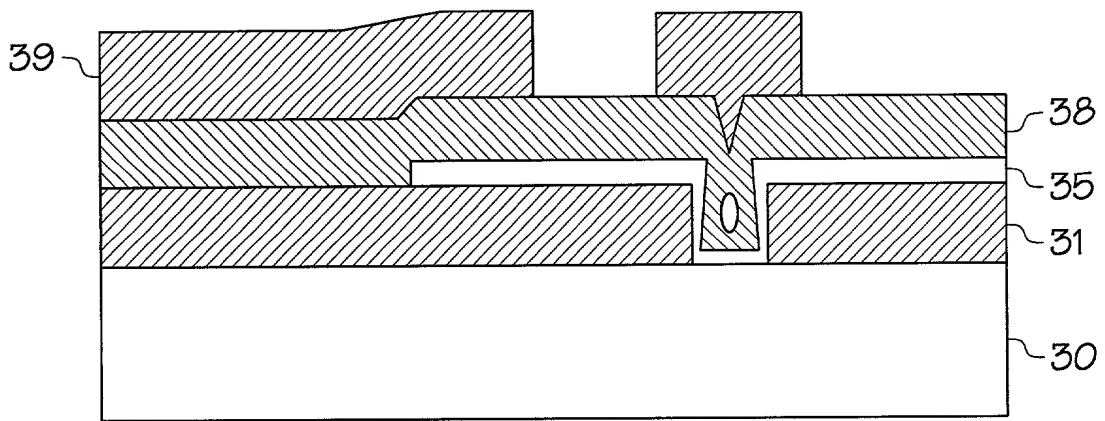


FIG. 1H

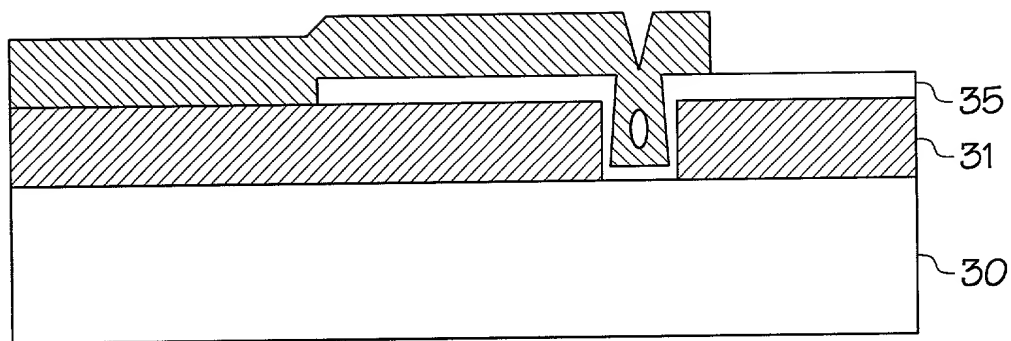


FIG. 1I

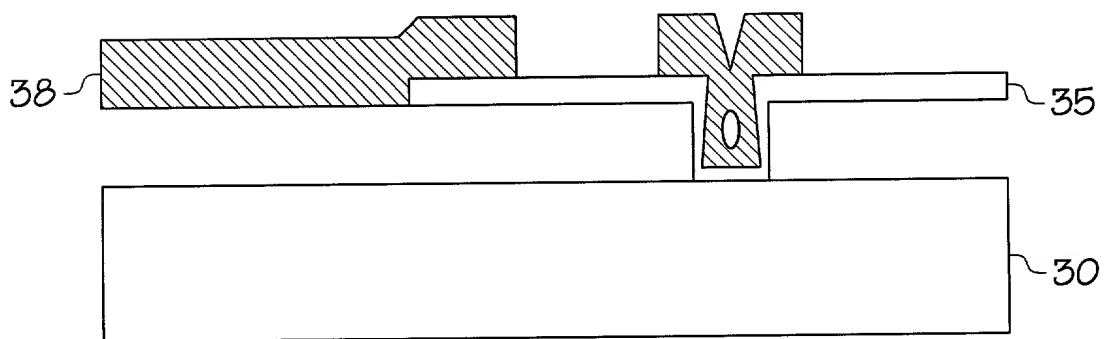


FIG. 1J

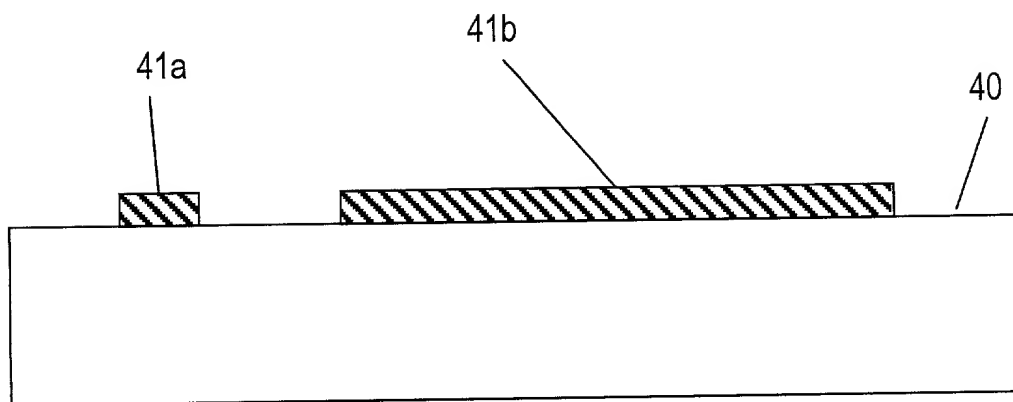


FIG. 2A

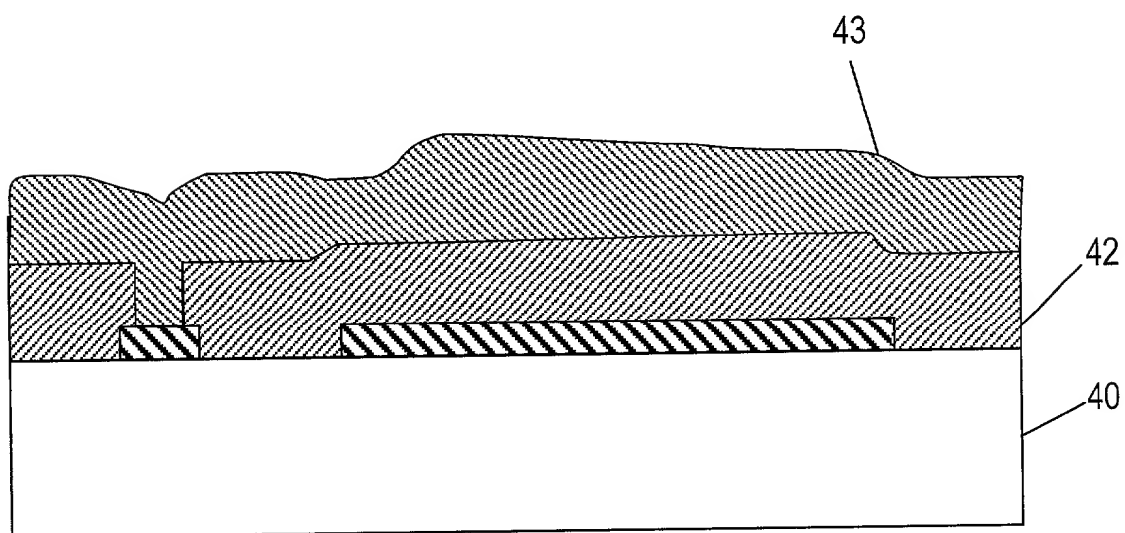


FIG. 2B

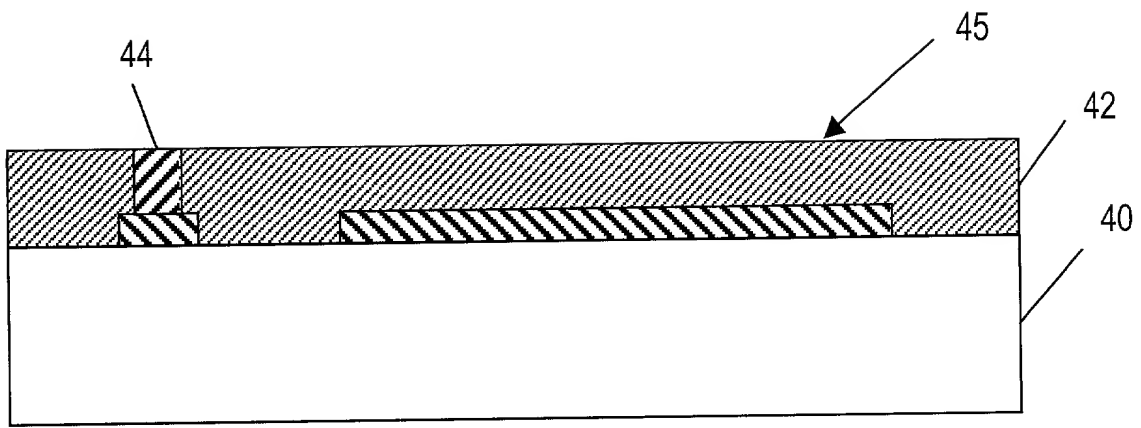


FIG. 2C

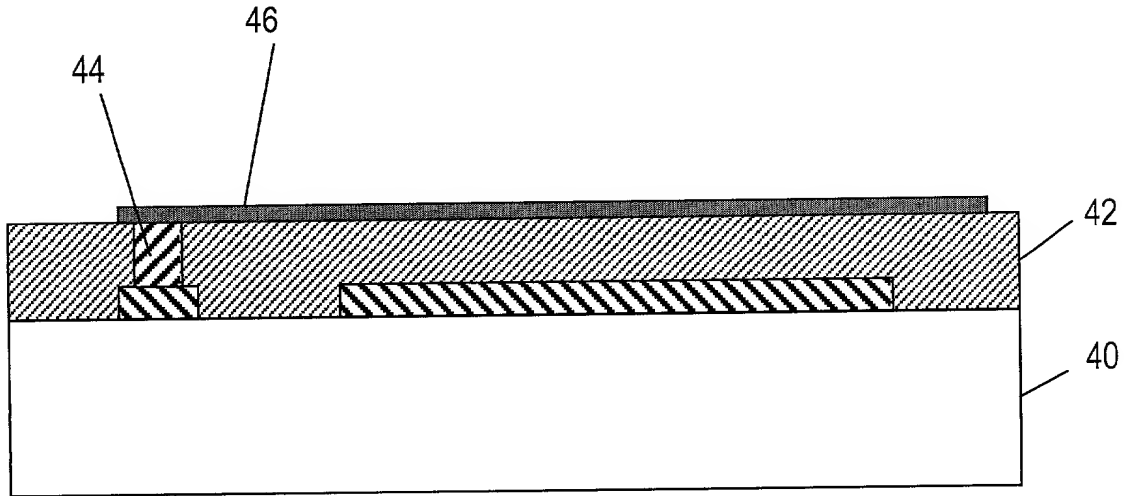


FIG. 2D

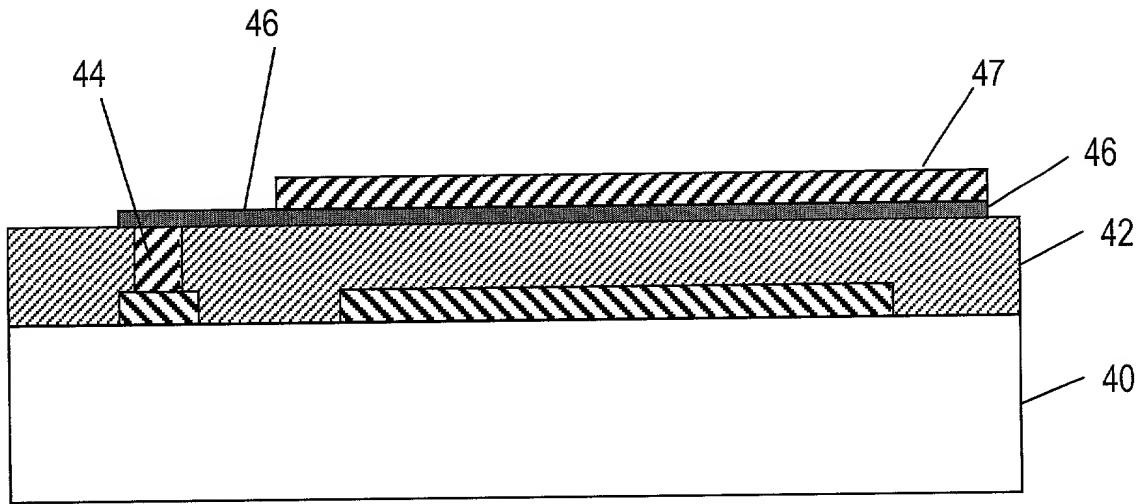


FIG. 2E

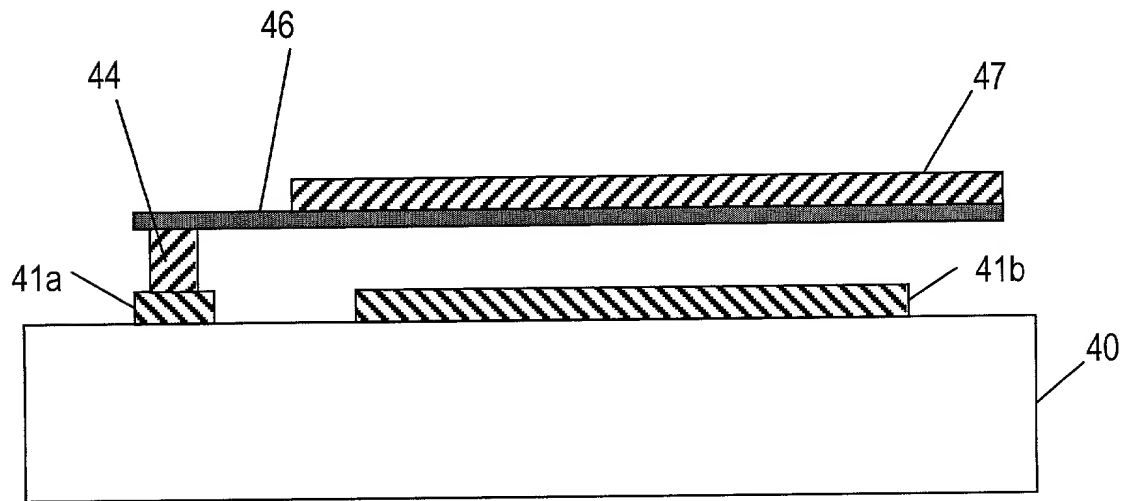


FIG. 2F

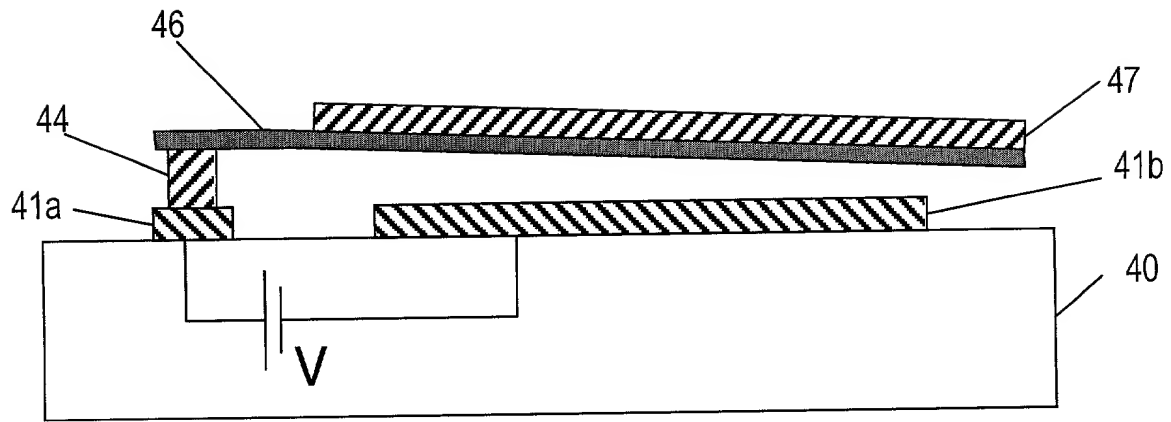


FIG. 2G



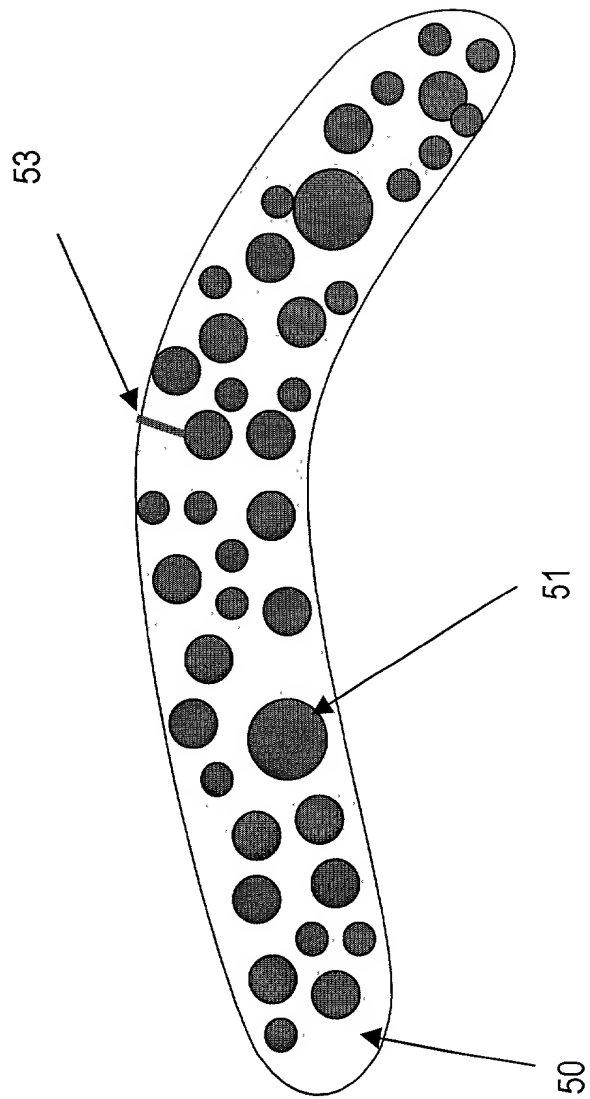
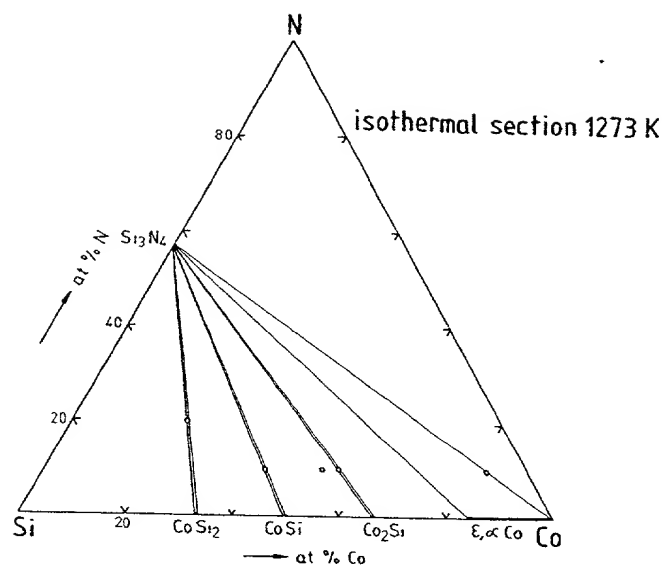


FIG. 3

FIG. 4A



In the absence of external nitrogen pressure.

Ni-Si-N Isothermal Section at 900 °C

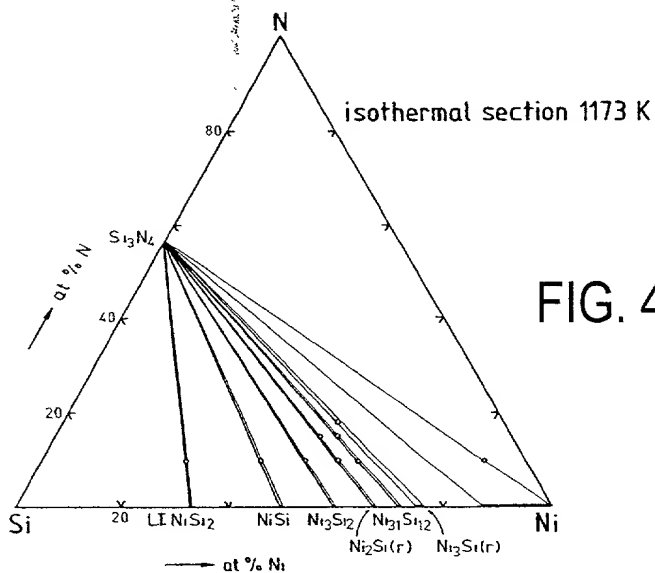


FIG. 4B

In the absence of external nitrogen pressure.

Ru-Si-N Isothermal Section at 1000 °C

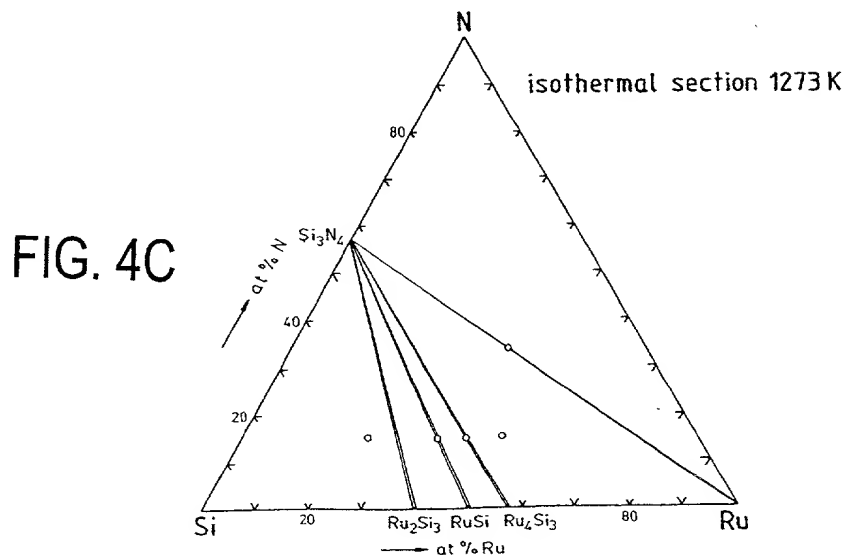
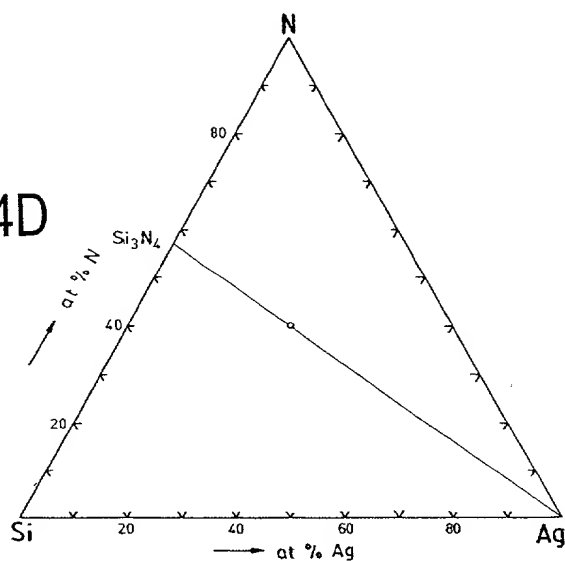


FIG. 4C

In the absence of external nitrogen pressure.

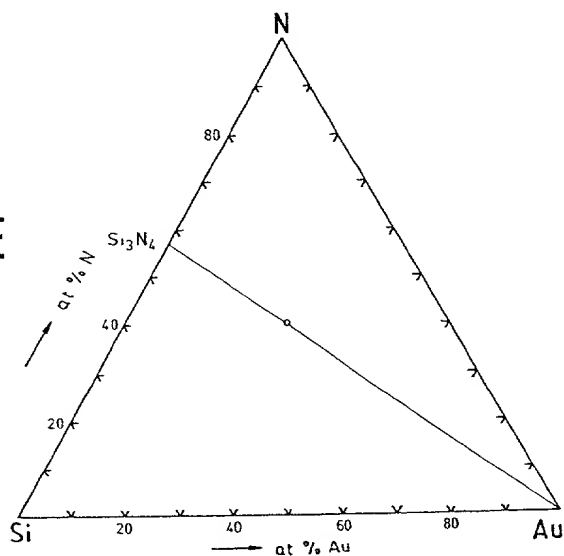
Ag-Si-N Isothermal Section at 900 °C

FIG. 4D



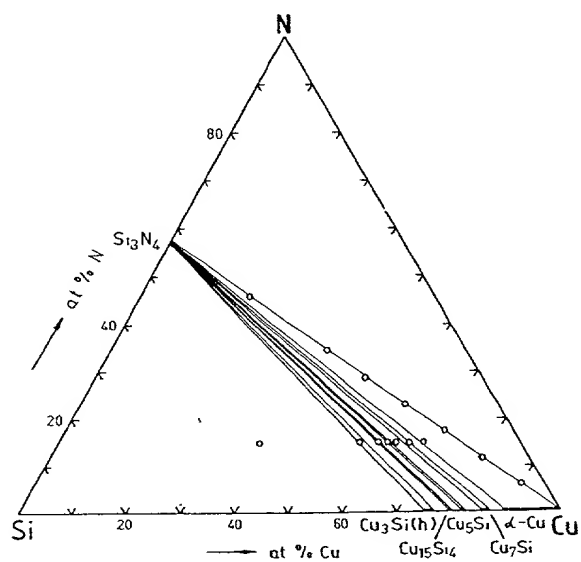
Au-Si-N Isothermal Section at 900 °C

FIG. 4E



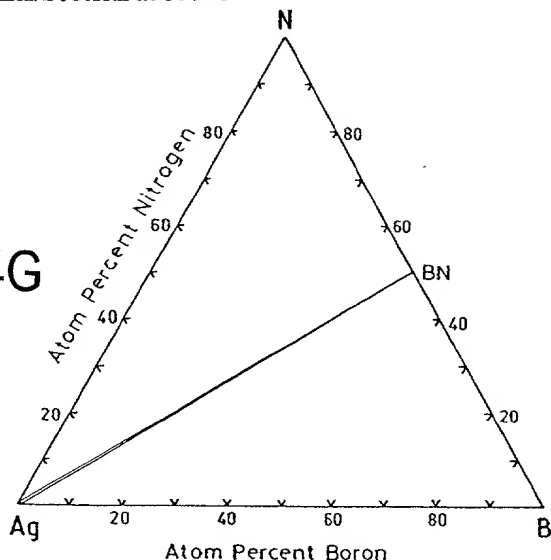
Cu-Si-N Isothermal Section at 700 °C

FIG. 4F



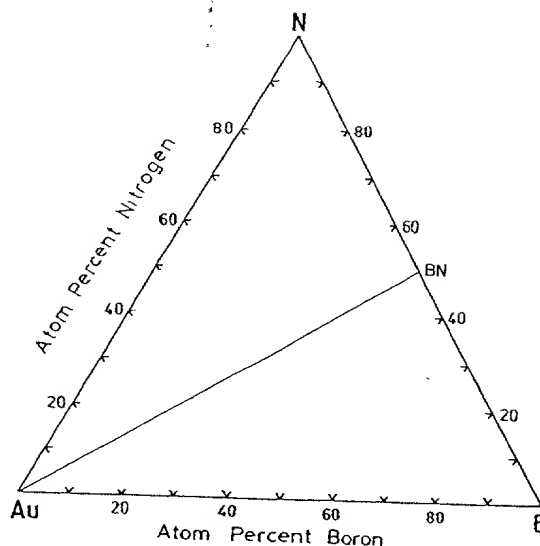
Ag-B-N Isothermal Section at 800 °C

FIG. 4G



Au-B-N Isothermal Section at 800 °C

FIG. 4H



Ru-B-N Isothermal Section at 1200 °C Under  $10^5$  Pa of Argon

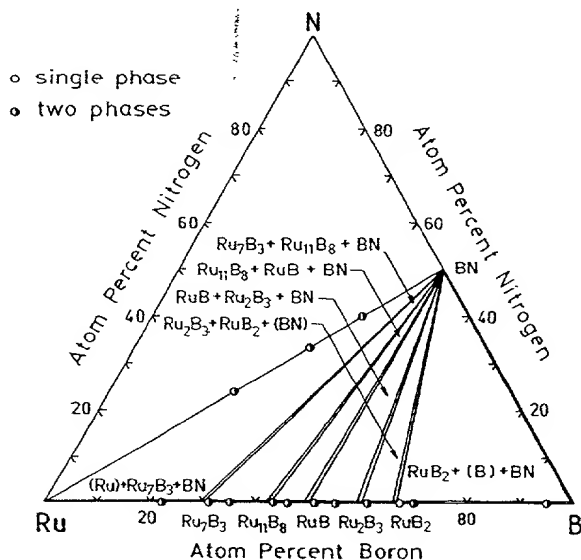
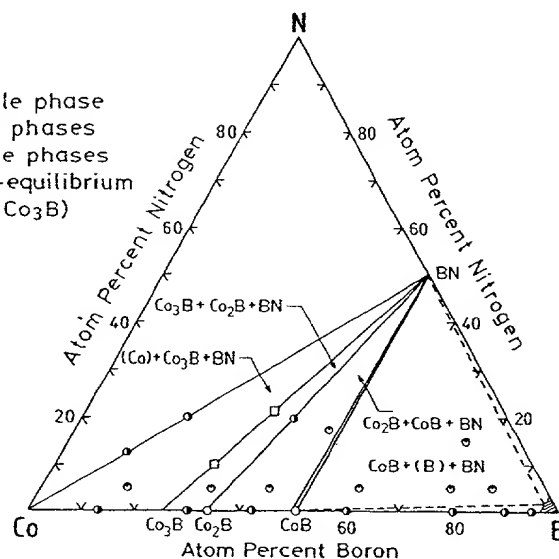


FIG. 4I

Co-B-N Isothermal Section at 900 °C Under 10<sup>5</sup> Pa of Argon

FIG. 4J

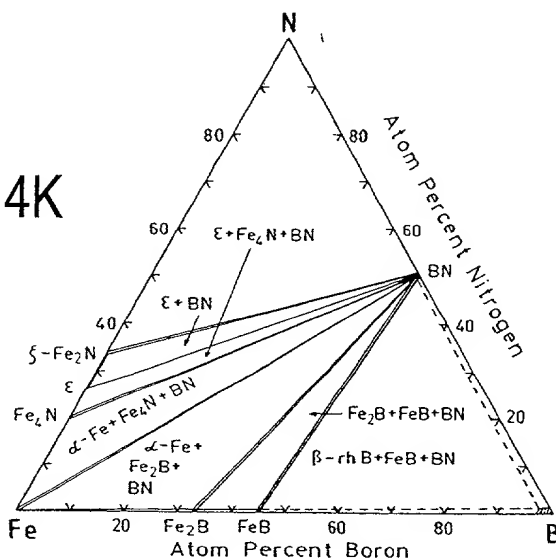
- single phase
- two phases
- ◐ three phases
- ◑ non-equilibrium (no Co<sub>3</sub>B)



Fe-B-N Isothermal Section at 400 °C

In the absence of external nitrogen.

FIG. 4K

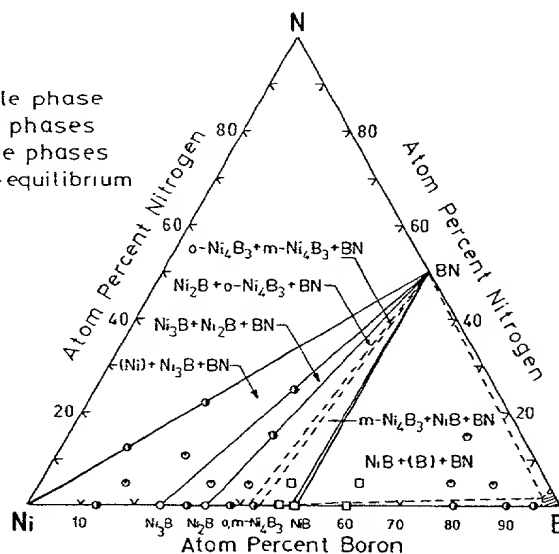


In the absence of external nitrogen. From [51Kie].

Ni-B-N Isothermal Section at 900 °C Under 10<sup>5</sup> Pa of Argon

FIG 4L

- single phase
- two phases
- ◐ three phases
- ◑ non-equilibrium



In the absence of external nitrogen.

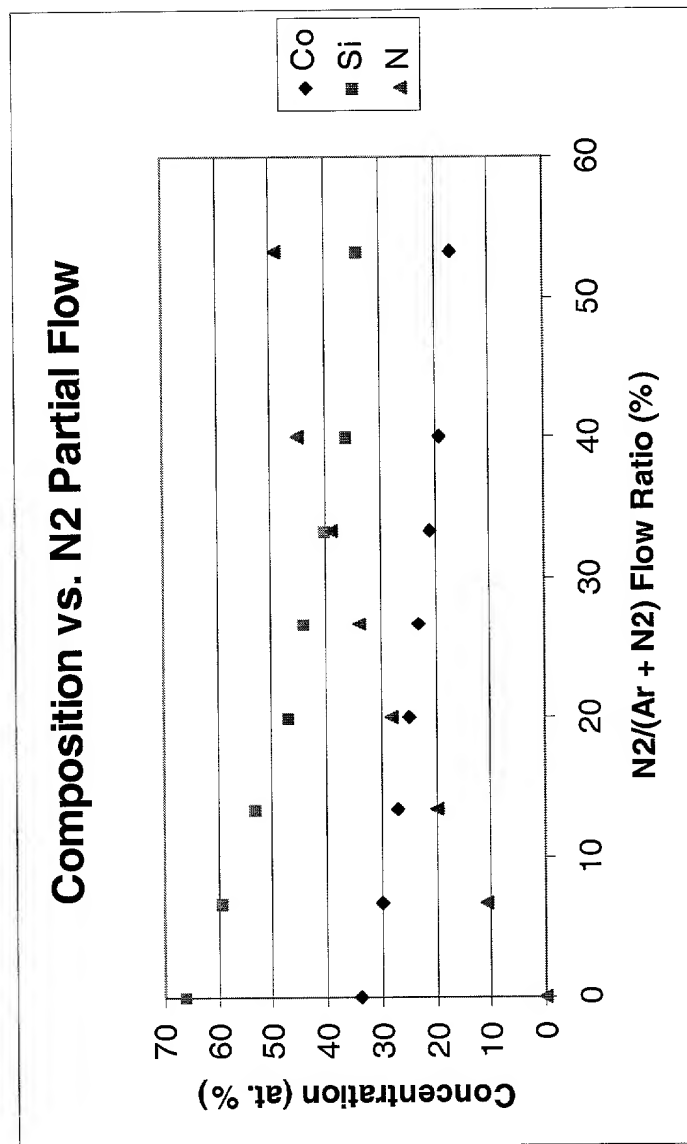


FIG. 5

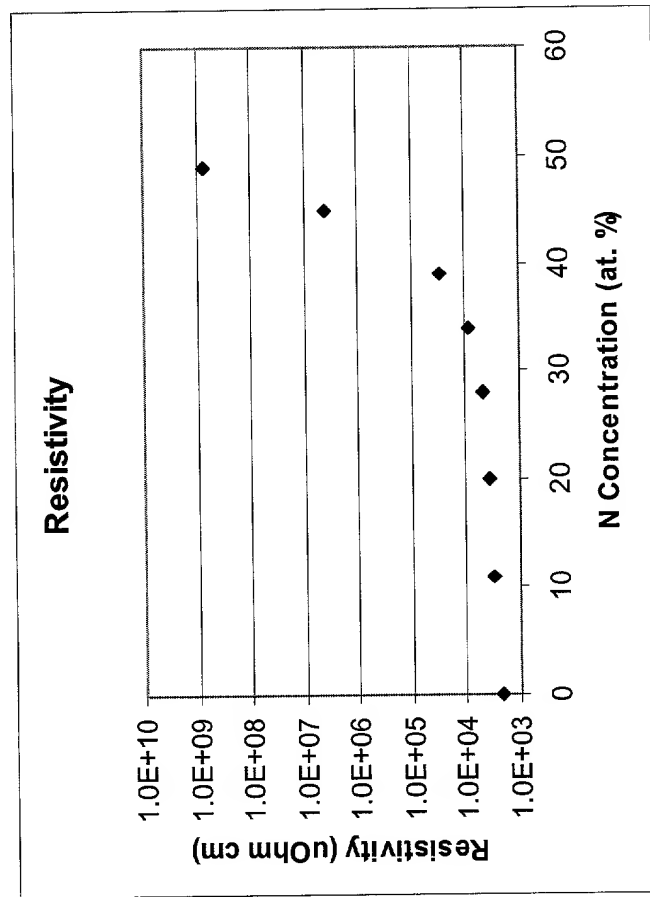


FIG. 6

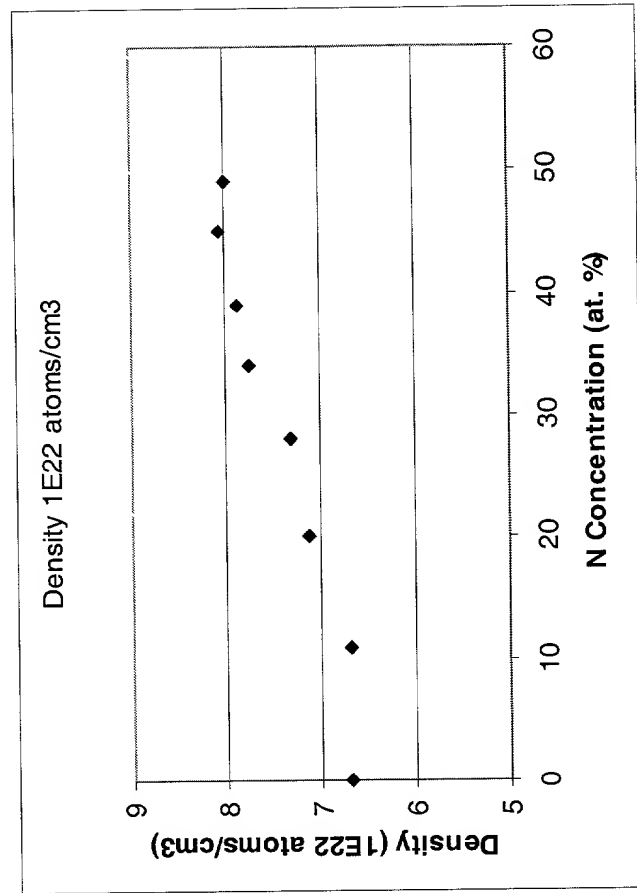


FIG. 7



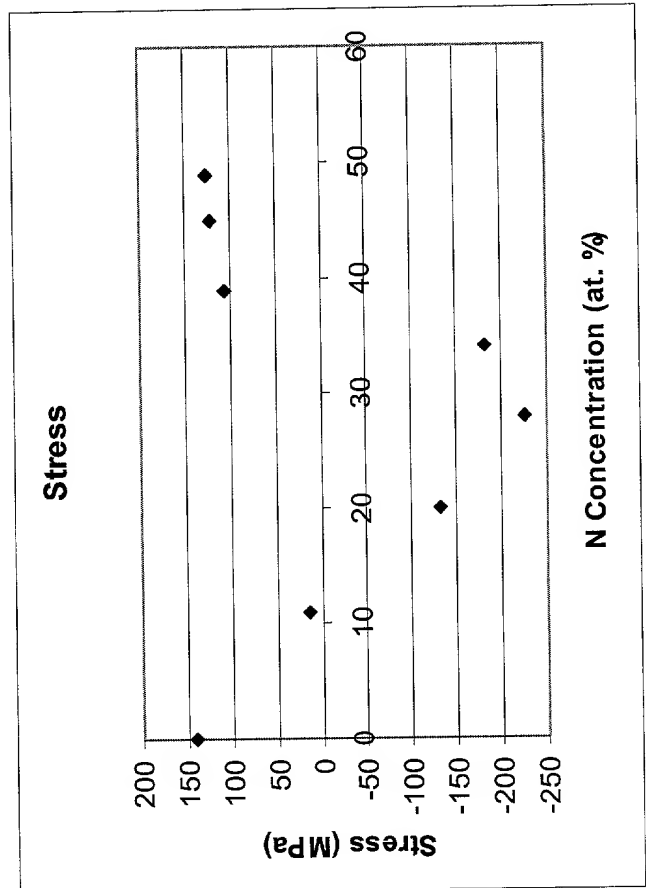


FIG. 8

	10 sccm	20 sccm	30 sccm
Cl2 base	200	230	270
CF4 base	133	202	202

Etching rate comparasion

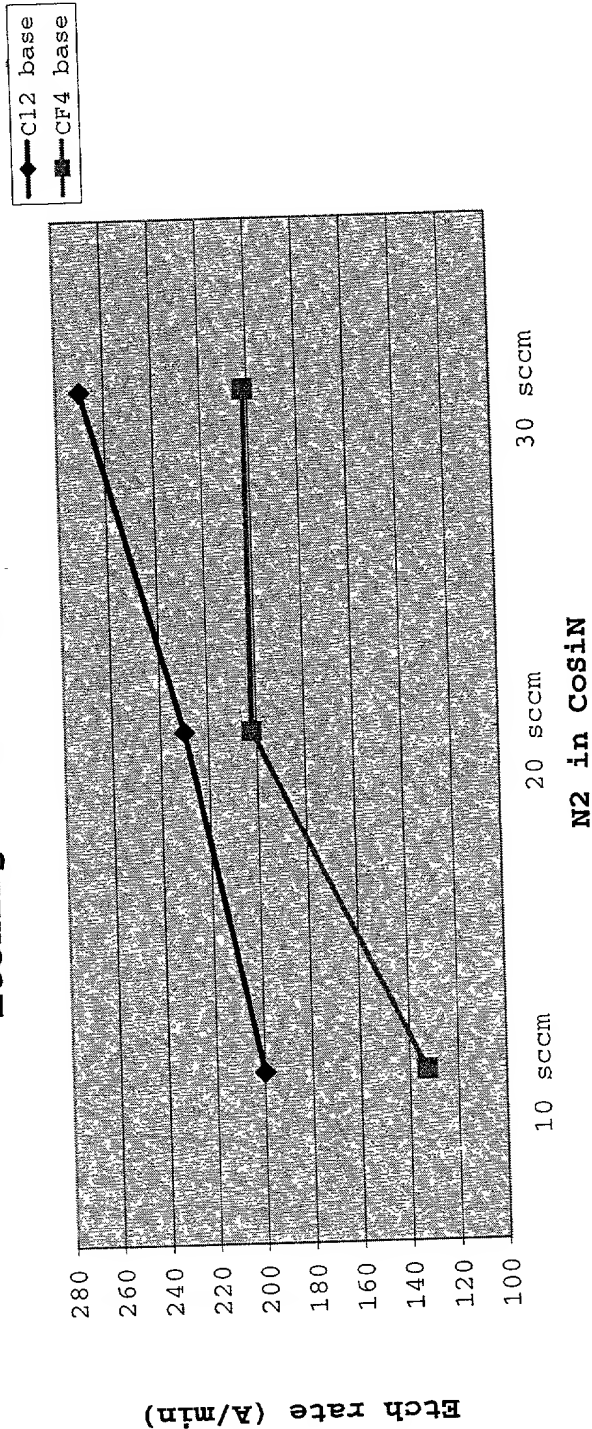


FIG. 9